



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/818,565 | 03/28/2001 | Hajime Amano | 109102 | 2851 |
| 25944 | 7590 | 01/15/2004 | EXAMINER | |
| OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320 | | | KIM, PAUL D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3729 | |
| DATE MAILED: 01/15/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,565

Applicant(s)

AMANO ET AL.

Examiner

Paul D Kim

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-26 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A, drawn to Fig. 1 by claims 1-12 and 25.

Currently, claims 1 and 2 are generic claims.

Species B, drawn to Fig. 2 by claims 13-24 and 26.

Currently, claims 13 and 14 are generic claims.

If applicant elects Species A, then:

Species AA drawn to a step of decreasing an anisotropic magnetic field of the spin valve film by interrupting a film making process is carried out while the substrate is set in a film forming chamber by claims 3-6.

Species AAA drawn to a process of decreasing an anisotropic magnetic field by exposing the substrate to plasma by claim 4.

Species AAB drawn to a process of decreasing an anisotropic magnetic field by conducted by flowing a process gas by claim 5.

Species AAC drawn to a process of decreasing an anisotropic magnetic field by surface treatment with a gas by claim 6.

Currently, claim 3 is generic claim.

Species AB drawn to a step of decreasing an anisotropic magnetic field of the spin valve film by interrupting a film making process is carried out while the substrate is set in a separate vacuum chamber by claims 7-12.

Species ABA drawn to a process of decreasing an anisotropic magnetic field by exposing the substrate to plasma by claim 8.

Species ABB drawn to a process of decreasing an anisotropic magnetic field by conducted by flowing a process gas by claim 9.

Species ABC drawn to a degree of the separate vacuum chamber is lower than the film forming chamber by claim 10.

Species ABD drawn to a higher H₂O or O₂ concentration than the film forming chamber by claim 11.

Species ABE drawn to a process of decreasing an anisotropic magnetic field by surface treatment with a gas by claim 12.

Currently, claim 7 is generic claim.

If applicant elects Species B, then:

Species BA drawn to a step of decreasing an anisotropic magnetic field of the spin valve film by interrupting a film making process is carried out while the substrate is set in a film forming chamber by claims 15-18.

Species BAA drawn to a process of decreasing an anisotropic magnetic field by exposing the substrate to plasma by claim 16.

Art Unit: 3729

Species BAB drawn to a process of decreasing an anisotropic magnetic field by conducted by flowing a process gas by claim 17.

Species BAC drawn to a process of decreasing an anisotropic magnetic field by surface treatment with a gas by claim 18.

Currently, claim 15 is generic claim.

Species BB drawn to a step of decreasing an anisotropic magnetic field of the spin valve film by interrupting a film making process is carried out while the substrate is set in a separate vacuum chamber by claims 19-24.

Species BBA drawn to a process of decreasing an anisotropic magnetic field by exposing the substrate to plasma by claim 20.

Species BBB drawn to a process of decreasing an anisotropic magnetic field by conducted by flowing a process gas by claim 21.

Species BBC drawn to a degree of the separate vacuum chamber is lower than the film forming chamber by claim 22.

Species BBD drawn to a higher H₂O or O₂ concentration than the film forming chamber by claim 23.

Species BBE drawn to a process of decreasing an anisotropic magnetic field by surface treatment with a gas by claim 24.

Currently, claim 19 is generic claim.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. A telephone call was made to Mr. Armstrong on 1/13/2004 to request an oral election to the above restriction requirement, but did not result in an election being made.

Art Unit: 3729

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D Kim whose telephone number is 703-308-8356. The examiner can normally be reached on Tuesday-Friday between 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5648.


Paul D. Kim
Examiner
Art Unit 3729